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ABSTRACT

Two studies examining the role of present and possible (future) academic selves are presented. In the first study, the relations between present and future selves, and changes in grade point average between the sixth and seventh grades, were examined. Results indicated that positive present and future academic self-concepts were related to positive changes in grade point average. In addition, when adolescents' present academic selves were higher than their future academic selves, GPA increased; whereas, when present social selves were higher than future social selves, GPA decreased. In the second study, using a different sample, the relations between present and future selves, and mastery and performance-approach achievement goals were examined. Results indicated that a present good-student self-concept was related positively to both performance and mastery goals whereas a future good-student self-concept only was related positively to performance goals. A factor analysis was used on the first study. Path analysis was used to model the relationships between demographic and self variables in the second study. Results are discussed in a context of changes in academic performance and motivation during the middle school years. (Author/EMK)

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Present and Possible Selves During Early Adolescence

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Paper presented at the bi-annual meeting of the Society for Research on Adolescence, March, 1998. We are grateful for assistance in the collection of these data to Tripp Griesinger, Dawn Johnson, Gloria Westerfield, Chammie Austin, Kevin Anshel, James Ballard, and Lynn Smith at the University of Kentucky. We also are grateful to members of the Middle School Coalition at the University of Michigan. This research was supported by grants from the U.S. Department of Education (R215A00430, R117C80003), and from the Institute on Education Reform at the University of Kentucky. Address all correspondence to: Eric M. Anderman, The University of Kentucky, Department of Educational & Counseling Psychology, 249 Dickey Hall, Lexington, KY 40506-0017. E-mail: eande1@pop.uky.edu

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Abstract

Two studies examining the role of present and possible (future) academic selves are presented. In the first study, the relations between present and future selves, and changes in grade point average between the sixth and seventh grades, were examined. Results indicated that positive present and future academic self-concepts were related to positive changes in grade point average. In addition, when adolescents' present academic selves were higher than their future academic selves, GPA increased, whereas when present social selves were higher than future social selves, GPA decreased. In the second study, using a different sample, the relations between present and future selves, and mastery and performance-approach achievement goals were examined. Results indicated that a present good-student self concept was related positively to both performance and mastery goals, whereas a future good-student self-concept only was related positively to performance goals.

Present and Possible Selves During Early Adolescence

The present study examines present and possible selves in academic and social domains, in two samples of early adolescents. The first study examines the predictive utility of present and possible selves as determinants of academic achievement; the second study examines the roles of present and possible selves as determinants of motivation during early adolescence.

Present and Possible Selves

A number of programs of research have examined the role of self-concept in the studies of achievement and learning during adolescence. Whereas some research programs have treated self-concept as a global construct (e.g., Wylie, 1974), recent research indicates that children and adolescents have domain-specific self-perceptions of competence (e.g., Byrne, 1984; Harter, 1982; Marsh, 1989). Thus, students' self-perceptions of ability have been examined in a number of separate domains, including, for example, the academic, social, and physical domains (e.g., Harter, 1982).

Markus and Nurius (1986) introduced the concept of possible selves. Possible selves represent future self-concepts, including both what individuals would like to become, and what they are afraid of becoming. Possible selves are particularly important self-beliefs, because they serve as a catalyst for future behavior. Individuals strive to either approach or avoid certain desired and undesired possible selves. Possible selves have been identified as being particularly important during adolescence (Oyserman & Markus, 1990). It is important for adolescents to focus on their futures, and decide upon life tasks and futures that are self-satisfying (Cantor & Kihlstrom, 1987; Czikszentmihalyi & Larson, 1984).

Some previous research has indicated a relation between possible selves and various outcomes during adolescence. For example, in one study, Oyserman and Markus (1990) found that non-delinquent adolescents were likely to display a balance between their hoped-for and feared selves, whereas delinquent youth were less likely to experience a balance between hoped-for and feared selves. Nevertheless, little research to date has examined possible relations between academic present and possible selves, and academic outcomes, such as achievement and motivation.

Self-Concept and Achievement

There is some debate regarding the causal relations between self-concept and academic achievement. That is, does actual academic performance influence academic self-concept, or does academic self-concept influence performance? Some researchers argue that self-concept is predictive of achievement, whereas others argue that achievement is causally related to self-concept (e.g., Caslyn & Kenny, 1977; Hansford & Hattie, 1982; Marsh, 1990). Wigfield and Karpathian (1991) suggest that the relations between self-concept and achievement are interdependent, and that neither one plays a predominantly causal role. In the present study, we examine the role of present and possible selves as predictors of achievement. Whereas it surely is plausible (and likely) that achievement is related to changes in self-perceptions, we were particularly interested in examining Markus and Nurius' (1986) characterization of possible selves as

determinants of future behaviors.

Self-Concept and Motivation

Much research has examined the role of the self in the domain of achievement motivation (e.g., Harter, 1982; Pintrich & Schunk, 1996; Wigfield, Eccles, Mac Iver, Reuman, & Midgley, 1991). In general, most studies support a domain-specific view of the relation between self-concept and motivation. Indeed, research on both human motivation and on self-perceptions of ability generally indicate that both motivation and self-perceptions occur in independent domains; thus one's motivation toward participation in athletics (and one's self-perceptions as an athlete) may be quite different from one's motivation toward (and self-perceptions of ability in) mathematics or science.

Some recent research has begun to examine the roles of present and possible academic selves and various aspects of motivatin. For example, Garcia and Pintrich (1995), in a study of early adolescents, found a relation between hoped for and feared possible selves, and a number of achievement-related variables. Using path analytic techniques, they found some general support for a model demonstrating a relation between the salience of hoped for and feared possible selves, and expectancies, as well as a relation between the importance attached to hoped for and feared possible selves, and behaviors.

In the present study, we examine the relations between present and possible academic selves and achievement goal orientations. Specifically, we focus on two types of achievement goals: mastery goals and performance goals. Students are characterized as being mastery oriented when their major goal while doing an academic task is to truly "master" the task at hand. For example, a student with mastery goals toward mathematics would be characterized as a student who is not frustrated by failure, who is more interested in self-comparisons than comparisons with other students, and who is focused on improvement and task-mastery. In contrast, a student with performance goals would be characterized as a student whose goal is to demonstrate his or her ability, and to look more competent than other students.[1] (Ames & Archer, 1988; Dweck & Leggett, 1988; Maehr & Midgley, 1996; Middleton & Midgley, 1997; Nichols, 1989). Research indicates that mastery goals often are associated with achievement and the use of adaptive cognitive and self-regulatory strategies; in contrast, the research on the relations between performance goals and achievement/strategy use is mixed -- whereas some studies find negative relations, others indicate that performance goals may be adaptive for some students (E. Anderman & Young, 1994; Elliot & Harackiewicz, 1996; Nolen, 1988; Nolen & Haladyna, 1990; Pintrich & De Groot, 1990).

Research indicates that achievement goals are predictive of a number of important behavioral and cognitive outcomes (see Pintrich & Schunk, 1996, for a review). Despite the growing body of research on achievement goals, however, little is known about their antecedents and development over time. Given Maruks and Nurius' (1986) suggestion that possible selves in particular function as cognitive incentives for future behaviors, we were particularly interested in examining the roles of present and possible selves as predictors of achievement goals. In a previous study, E. Anderman, Hicks, and Maehr (1994) found that present and possible "good student" academic self-concepts declined over the transition from elementary to middle grades school. The change was greater for males than for females. In addition, the endorsement of performance goals was related to

students' future self-concepts after the transition to middle school, but not before.

The present research consists of two studies, using two distinct samples of early adolescents. In the first study, the relations between present and future selves, in both academic and social domains, and performance in school are examined. In the second study, the roles of present and future academic self-concepts as predictors of achievement goals are examined.

Study #1

The first study examines the relations between present and future selves, and academic performance. This study included a sample of 315 students who were in the seventh grade, from two middle schools from a mid-western state. In terms of gender, 55.6% of the sample was male, and 44.4% was female. The sample was 82.2% European American, 14.9% African American, 0.6% Native American, 1.9% Latino American, and 0.3% Asian American. Students completed versions of the Patterns of Adaptive Learning Survey (PALS; Midgley et al., in press). The PALS instrument contained items assessing various aspects of motivation, using a goal theory perspective. In addition, the instrument also contained items measuring present and future selves, in the academic and social domains. We refer to possible selves as "future selves," because the items used in the present study specifically asked students to assess their beliefs about their views of themselves in the future.

Measures

Principal components analysis with varimax rotation was used to examine the factor structure for the present and future selves measures. Eigenvalues of 1.0 were used as minimums in the analyses.

Most items loaded in identical manners for the present and future selves. The factor loadings for the present selves are displayed in table 1, and the factor loadings for the future selves are displayed in table 2. Scales were formed representing four domains: present and future positive academic selves, and present and future social selves. Reliable scales representing two other dimensions (present and future poor academic selves) could not be developed; although the principal component analyses indicated that there were distinct factors representing poor academic selves, Cronbach's alphas for those scales were unacceptably low. Means, standard deviations, and Cronbach's alpha coefficients for the items used in forming the final scales are presented in table 3. The final scales were not skewed greatly; all scales were slightly skewed negatively. For the present academic self scale Sk = -.40; for future academic self, Sk = -.58; for present social self, Sk = -.42; and for future social self, Sk = -.48.

Parental education was used as a proxy for socieoconomic status (SES). This is the same measure that has been used as a proxy for SES in Bachman et al.'s Monitoring the Future studies (e.g., L. Johnston, O'Malley, & Bachman, 1992), and Johnston et al.'s studies of Channel One (e.g., J. Johnston, Brzezsinski, & E. Anderman, 1994). For the present study, we adapted Bachman et al.'s measure, so that the anchors for the measure were: 1 = didn't finish high school, 2 = high school graduate, 3 = completed some college, 4 = college graduate, 5 = attended graduate school, and 6 = don't know. Participants

scores were relatively normally distributed. For academic selves, the mean difference score was –0.30 (SD = 0.65, Sk = -1.03), whereas for social selves, the mean difference score was –0.23 (SD = 0.39, Sk = -0.98). Since the future selves were subtracted from the present selves, high and positive difference scores are indicative of having a higher present self-concept than future self-concept, whereas low and negative difference scores are indicative of having a lower present self-concept than future self-concept.

These difference scores were used in regression analyses, predicting changes in GPA. Results are presented in table 6. Results indicate that differences between one's present and future academic and social selves are statistically significant predictors of change in GPA. Specifically, when adolescents' present academic selves are higher than their future academic selves, GPA increases ($\beta = 0.12$, $p<.01$); in contrast, when adolescents' present social selves are higher than their future social selves, GPA decreases ($\beta = -0.08$, $p<.05$). When differences between present and future selves have been controlled, ethnicity is not a significant predictor of change in GPA, whereas SES is related positively to increases in GPA ($\beta = 0.08$, $p<.05$).

Study #2

The second study, conducted with a separate sample of students, examined the relations between demographic variables, present and future selves, and mastery and performance-approach achievement goals.

The sample consisted of 220 students in the sixth, seventh, and eighth grades, from a southeastern American urban middle school. Students were administered questionnaires in November, and again in May, during the 1995-96 school year. The sample was 48.2% male, and 51.8% female. In terms of grade level, 54.1% of the students were in the sixth grade, 23.2% were in the seventh grade, and 22.7% were in the eighth grade. In terms of ethnicity, 42.3% of the students were of European American descent, 41.8% were African American, and 15.9% belonged to other ethnic groups.

Confirmatory factor analysis using LISREL VIII was used to examine the factor structure. For the present selves measures, a three-factor model was confirmed (GFI = 0.96, AGFI = 0.93), with one factor representing a good student present self-concept, one factor representing a bad student present self-concept, and a third factor representing a social present self-concept. The same three factors emerged for future selves (GFI = .95, AGFI = .91). Factor loadings from the confirmatory factor analysis are presented in table 7.

Separate scales were formed for the present and future good student and bad student academic selves; reliable scales for present and future social selves could not be formed (Cronbach's alpha coefficients were below .60). Alpha coefficients were .60 for present good student, .70 for present bad student, .61 for future good student, and .72 for future bad student.

The measures of mastery and performance-approach goals were based on Midgley et al.'s measures (Midgley et al., in press). The measure for mastery goals contained six items (alpha = .83), and the measure for performance approach goals contained five items (alpha = .85). The mastery and performance approach goal items reflected general goals

responded to separate items for their mothers and their fathers, and the mean of the two items was used as the proxy for SES. If students did not know the educational level of one of their parents, the value available for the other parent was used. For this measure, the mean level of parental education was 2.86 (SD = 1.29).

GPA was converted to a 13 point scale, where 1 is the lowest grade (E), and 13 is the highest possible grade (A+). The cumulative GPA represents the mean GPA for English, mathematics, science, and social studies, across both semesters of the seventh grade academic year.

Dummy variables were created to represent gender and ethnicity. For gender, 0 = male and 1 = female. For ethnicity, European American students were coded as 0, and all non European American students were coded as 1.

Present and Possible Selves as Predictors of Grade Point Average

The measures of present and future selves were used as predictors in multiple regression analyses, where the dependent variable represented students' cumulative grade point average (GPA) for the seventh grade. Separate analyses were run for the present and future selves. Gender, ethnicity, and mean level of parental education were entered into the analyses as statistical controls. Results are presented in table 4.

In the present selves model, significant predictors of GPA included academic self ($\beta = 0.66$, $p<.001$), social self ($\beta = -0.12$, $p<.01$), gender ($\beta = 0.21$, $p<.001$), and ethnicity ($\beta = -0.10$, $p<.05$). In the future selves model, significant predictors included academic self ($\beta = 0.43$, $p<.001$), social self ($\beta = -0.14$, $p<.01$), gender ($\beta = 0.31$, $p<.001$), and ethnicity ($\beta = -0.13$, $p<.01$). In both models, GPA was related positively to having a positive academic self (seeing oneself as a good student) and being female. GPA was related negatively to having a positive social self (seeing oneself as popular) and to being a member of a minority group. Socioeconomic status was unrelated to GPA in both models.

In the next set of analyses, the students' grade point averages from the previous school year (grade 6) were included in the regressions as covariates. Consequently, these regressions examine the relations between present and future selves on change in GPA between the sixth and the seventh grades. Results are presented in table 5.

For the present selves model, improved GPA was predicted positively by having a positive academic self-concept during the seventh grade ($\beta = 0.32$, $p<.001$), and being female ($\beta = 0.14$, $p<.001$). For the future selves model, improved GPA was related positively to having a positive academic future self ($\beta = 0.19$, $p<.001$), and to being female ($\beta = 0.16$, $p<.001$). The covariates were significant positive predictors of GPA in both models. Neither ethnicity nor social self-concept were significant predictors of changes in GPA between the sixth and the seventh grades. Thus, in summary, increases in GPA between the sixth and the seventh grades were associated with a view of the self as being a "good student" both in the present and in the future, whereas changes in GPA were unrelated to perceptions of one's social self-concept.

Using differences between present and future selves as predictors of GPA.

Differences between students' present and possible selves in both the academic and social domains were calculated by creating difference scores. For both measures, the difference

toward learning, rather than being oriented specifically to one academic domain. Sample items for the mastery scale include, "I like school work that I'll learn from even if I make a lot of mistakes," and "I do my school work because I'm interested in it." Sample items for the performance approach scale include, "I want to do better than other students in my class," and "Doing better than other kids in my classes is important to me."

Parental education again was used as a proxy for SES, with a scale where 1 = didn't graduate from high school, 2 = high school graduate, 3 = went to some college, 4 = graduated from college, and 5 = don't know. Again, mean responses for mothers and fathers were used (Mean = 2.30, SD = 0.96). Gender was dummy-coded, with 1 = female, and 0 = male; ethnicity also was dummy-coded, with 1 = African American, and 0 = non African American.

Results

Path analyses were used to examine the relations between the demographic variables, present and possible (future) selves, and mastery and performance goals. Separate models were run for present and future selves. In each model, the exogenous variables (ethnicity, gender, SES, and age) and the present and future selves measures, were administered at the beginning of the school year (Time 1); the measures for mastery and performance goals were administered at the end of the school year (Time 2). Consequently, the models examine the relations between present and future selves as measured at the beginning of the school year, and achievement goals as measured at the end of the school year.

Results for the present selves model are presented in figure 1. Results indicate that the only statistically significant demographic predictor of achievement goals for the present selves model is ethnicity: African American students are somewhat more likely to endorse performance-approach goals at the end of the year than are non African American students. A "good student" present self concept is related positively to both performance approach goals and to mastery goals. The "bad student" present self-concept measure was unrelated to mastery and performance goals. That is, students who viewed themselves positively in the academic domain in November, were more likely to endorse both types of motivational goals in May.

Results for the future selves model are presented in figure 2. More demographic variables emerged as predictors in the future selves model. Lower SES students and African American students reported lower future good student selves. In addition, younger students reported higher future bad student selves than did older students. Performance approach goals were related positively to a future good student self, and to being African American. The future bad student self concept measure was unrelated to either performance or mastery goals.

In summary, results of the second study indicate that both present good student and future good student self-concepts are related to achievement goals. Whereas present good-student selves are related to both mastery and performance goals, future good student selves are related only to performance goals.

Discussion

The concept of possible selves has not received much attention in the study of

adolescent learning and achievement. Results of the current studies indicate that a number of different latent measures of present and possible selves can be derived empirically, and that those measures are related to both academic achievement and to motivation.

Present and Future Selves as Predictors of Academic Achievement

Results of the first study indicated that both present and future academic selves were predictive of positive changes in students' end of year grade point averages, whereas present and future social selves were unrelated to changes grade point average. In addition, differences between present and future academic selves were related to changes in GPA, whereas differences in present and future social selves were unrelated to changes in GPA.

Why would academic self-concept be related to changes in GPA, whereas social self-concept was unrelated to changes in GPA? First, it is important to note that the measure of change in GPA examined changes from the sixth grade to the seventh grade. All students in this sample entered middle school in the sixth grade; therefore, the changes in GPA are probably not directly related to the transition from elementary to middle school, since that transition occurred one year prior to the present study (see E. Anderman & Maehr, 1994, and Eccles & Midgley, 1989, for discussions of this issue). As suggested by a number of researchers who have examined various aspects of the self during adolescence (e.g., Harter, 1982; Wigfield et al., 1991), aspects of academic self-concept are probably domain specific. Therefore, in some ways it is not surprising that academic present and possible selves were related to an academic outcome, whereas social present and possible selves were not predictive of changes in GPA.

It is interesting to note, however, that students' present and future social selves were related to GPA in the first set of analyses. That is, social selves were related to absolute level of GPA, but not to change in GPA between sixth and seventh grades. One possible explanation for these findings is that adolescents who typically receive lower grades in school may begin to define themselves more in terms of social than academic success. Previous research has demonstrated that endorsing goals of wanting peer popularity is negatively associated with GPA (e.g., L. Anderman, 1997; L. Anderman, Johnson, & E. Anderman, 1997). The current findings suggest the need for more longitudinal research that examines changes in adolescents' academic and social self-concepts in relation to achievement-related feedback, such as grades.

Present and Future Academic Selves as Predictors of Goal Orientations

Mastery and performance goals are related to a number of important educational outcomes. In particular, mastery goals are related to achievement, intrinsic motivation, effort, and positive attributional styles (e.g., Ames & Archer, 1988; Nolen, 1988; Pintrich & De Groot, 1990). Results of our second study indicated that having a good student present self-concept was related positively to both mastery and performance goals. In contrast, having a good student future self-concept was related positively to performance goals, but not to mastery goals.

In the present study, performance goals were operationalized in terms of performance approach goals. Thus a high score on that scale was indicative of wanting to do school work in order to prove one's competence, or to appear more able or competent than other students. Why might a good student future self-concept be unrelated to

mastery goals, but related positively to performance approach goals? Some research has indicated that during the middle school years in America, students and teachers are more focused on performance goals, and less focused on mastery goals, than during the elementary school years (E. Anderman & Midgley, 1997; Midgley, E. Anderman, & Hicks, 1995). Therefore, during the middle school years, students may re-define the meaning of academic success, and the meaning of schooling in general. Specifically, during the more competitive and grade-oriented middle school years, students may come to define learning and schooling in terms of performance goals. Thus during early adolescence, being a successful student becomes related more specifically to grades, performance, and comparisons with others, rather than being related to task mastery, effort, and intrinsic motivation (see E. Anderman & Maehr, 1994). Consequently, the observed positive relation between a future good-student self-concept and performance goals may be related to the stress on performance and grades associated with many American middle grade schools. Students who see themselves as being successful in the future in academics may see the need to endorse performance goals. The data in the present study support this notion -- students who see themselves as being good students in the future (as measured at the beginning of the school year) report endorsing performance goals (but not mastery goals) at the end of the school year.

In the present selves model, a present good-student self-concept at the beginning of the school year was related positively both to performance approach goals and to mastery goals at the end of the school year. Thus students who see themselves as good students at the beginning of the school year are likely to endorse both performance and mastery goals at the end of the school year. Why is a good student present self-concept predictive of mastery goals, whereas a good student future self-concept is unrelated to mastery goals? Perceiving oneself as a good student in the here and now may be rewarding in the present; if students feel good about themselves right now as students, then they may be more likely to feel competent, and thus they may feel that it is acceptable to exert effort and to truly take the time to master their academic tasks; however, as students see that schooling is related so strongly to grades and performance during the middle school years (Midgley et al., 1995), students may come to define success in the future more in terms of performance than in terms of task mastery.

Limitations of the Present Study

The present study has a number of limitations. First, identical measures were not used with the two samples. Ideally, it would have been useful to have administered identical measures to both samples, and to examine the cross-sample reliability and validity of the measures. Nevertheless, the confirmatory factor analysis conducted in study #2 did offer some support for a common underlying conceptual structure in the measures used.

Second, we only included measures of two types of achievement goals: mastery and performance-approach goals. Nevertheless, research has identified other types of achievement goals, including performance-avoidance goals (e.g., Elliot & Harackiewicz, 1996), and various social goals (e.g., L. Anderman, 1997). Additional studies that include measures of these other types of goal orientations are warranted.

Third, the effect sizes in the path analyses were not very strong. The largest beta coefficient was .27 ($p<.001$). Additional studies with larger and more varied samples may

yield stronger results.

Conclusions and Directions for Additional Research

Results of the present study indicate that present and future selves are related to achievement and to motivation during early adolescence. Specifically, perceiving oneself as a good student in the present is related to an increase in grades, and to the endorsement of both performance approach and mastery achievement goals. Perceiving oneself as being a good student in the future is related to an increase in grades, and to the use of performance-approach achievement goals.

In this study, we did not operationalize possible selves in terms of hoped for and feared selves, in the identical manner that was used by Markus & Nurius (1986). Rather, we focused on more general aspects of present and possible selves -- specifically, a "good student" and "bad student" present and future self. Additional studies that assess whether or not adolescents fear becoming a "bad student" in the future are warranted.

Additional studies using interviewing techniques may yield important additional information concerning the relations between present and future selves, and academic outcomes. In addition, longitudinal studies examining the predictive validity of possible selves over longer periods of time, and the reciprocal relations between self-perceptions and achievement feedback (such as school grades or evidence of peer popularity) are needed. It would be particularly useful and important to understand if and how possible selves are related to long-term changes in academic performance and motivation.

Endnotes

1. Elliot and Harackiewicz (1996) and Middleton and Midgley (1997) have identified two types of performance goals. Approach performance goals occur when students are interested in demonstrating their ability, whereas avoidance performance goals occur when student are focused on avoiding looking incompetent or "dumb." The measure included in these studies assesses approach performance goals only.

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Table 1

Factor loadings for present selves

Item	Factor 1	Factor 2	Factor 3
Good student	.78	-.00	.17
Smartest in class	.82	.10	.07
Do better than other students	.81	.04	.07
Be on the honor roll	.70	.02	.33
Getting rewarded for doing well	.37	.21	.19
Popular	-.08	.81	.01
Chosen first for teams and groups	.12	.74	-.15
Have a lot of friends	.00	.82	.11
Competitive	.26	.49	-.27
Doing as little school work as possible	-.27	.22	-.57
Interested in my school work	.24	-.13	.66
Wanting to quit school	-.21	.08	-.66
Getting good grades	.04	.30	.60
Poor student	-.61	.06	-.40

Table 2

Factor loadings for future selves

Item	Factor 1	Factor 2	Factor 3
Good student	.65	.13	.24
Smartest in class	.82	.15	.12
Do better than other students	.77	.04	-.04
Be on the honor roll	.60	.05	.43
Interested in my school work	.49	-.11	.36
Popular	.00	.81	.01
Chosen first for teams and groups	.07	.75	-.04
Have a lot of friends	-.04	.78	.14
Competitive	.27	.50	-.16
Doing as little school work as possible	-.09	.17	-.67
Getting rewarded for doing well	.24	.27	.36
Wanting to quit school	-.02	.17	-.67
Getting good grades	.11	.25	.56
Poor student	-.31	-.04	-.60

Table 3

Means, standard deviations, and Cronbach's alpha coefficients for items and scales

	Present Self			Future Self		
Item	Mean	SD	Alpha	Mean	SD	Alpha
Academic Self	3.40	0.91	0.81	3.72	0.80	0.73
Good student	3.91	0.90		4.20	0.82	
Smartest in class	2.69	1.14		3.06	1.17	
Do better than other students	3.17	1.06		3.41	1.06	
Be on the honor roll	3.88	1.35		4.27	1.05	
Social Self	3.64	0.80	0.70	3.87	0.77	0.69
Popular	3.26	0.99		3.54	1.04	
Chosen first for teams and groups	3.25	1.24		3.51	1.16	
Have a lot of friends	4.15	0.99		4.35	0.90	
Competitive	3.87	1.15		4.05	1.13	

Table 4

Standardized Regression Coefficients Predicting End of Year Cumulative GPA for Present and Future Selves

	Present Self Model		Future Self Model	
Predictor	Beta	t	Beta	t
Academic Self	0.66	14.87***	0.43	8.06***
Social Self	-0.12	-2.73**	-0.14	-2.50**
Gender	0.21	4.83***	0.31	5.80***
Ethnicity	-0.10	-2.30*	-0.13	-2.48**
SES	-0.03	-0.74	0.00	0.07
Adjusted r-squared	0.52		0.29	
F	58.79***		22.86***	

Note. Gender is coded 0 = male, 1 = female; ethnicity is coded 0 = non-minority, 1 = minority.

Table 5

Standardized Regression Coefficients Predicting Change in End of Year Cumulative GPA for Present and Future Selves

	Present Self Model		Future Self Model	
Predictor	Beta	t	Beta	t
Academic Self	0.32	7.95***	0.19	5.10***
Social Self	-0.06	-1.86	-0.04	1.09
Gender	0.14	4.18***	0.16	4.56***
Ethnicity	-0.05	-1.68	-0.06	-1.73
SES	0.04	1.08	0.06	1.78
GPA from Previous School Year	0.58	14.40***	0.70	18.75***
Adjusted r-squared	0.73		0.70	
F	122.57***		103.42***	

Table 6

Standardized regression coefficients predicting change in GPA, using differences between present and future selves as predictors

Variable	Beta	t
Academic self difference score	0.12	2.91**
Social self difference score	-0.08	-2.00*
Gender	0.15	4.14***
Ethnicity	-0.03	-0.90
SES	0.08	2.16*
GPA from previous school year	0.73	18.52***
Adjusted r-squared	0.68	
F	94.99***	

Table 7

Factor loadings for confirmatory factor analyses for present and future selves

Item	Present	Future
A good student	.61	.58
Doing better than other students	.43	.34
Interested in my school work	.46	.61
Successful at what I do	.62	.61
Doing as little school work as possible	.49	.44
A poor student	.71	.64
Wanting to quit school	.59	.69
A person who gets into a lot of trouble	.69	.75
A popular student/person	.67	.85
Having a lot of friends	.54	.46

Figure 1.

Path Analysis for Present Selves and Achievement Goals

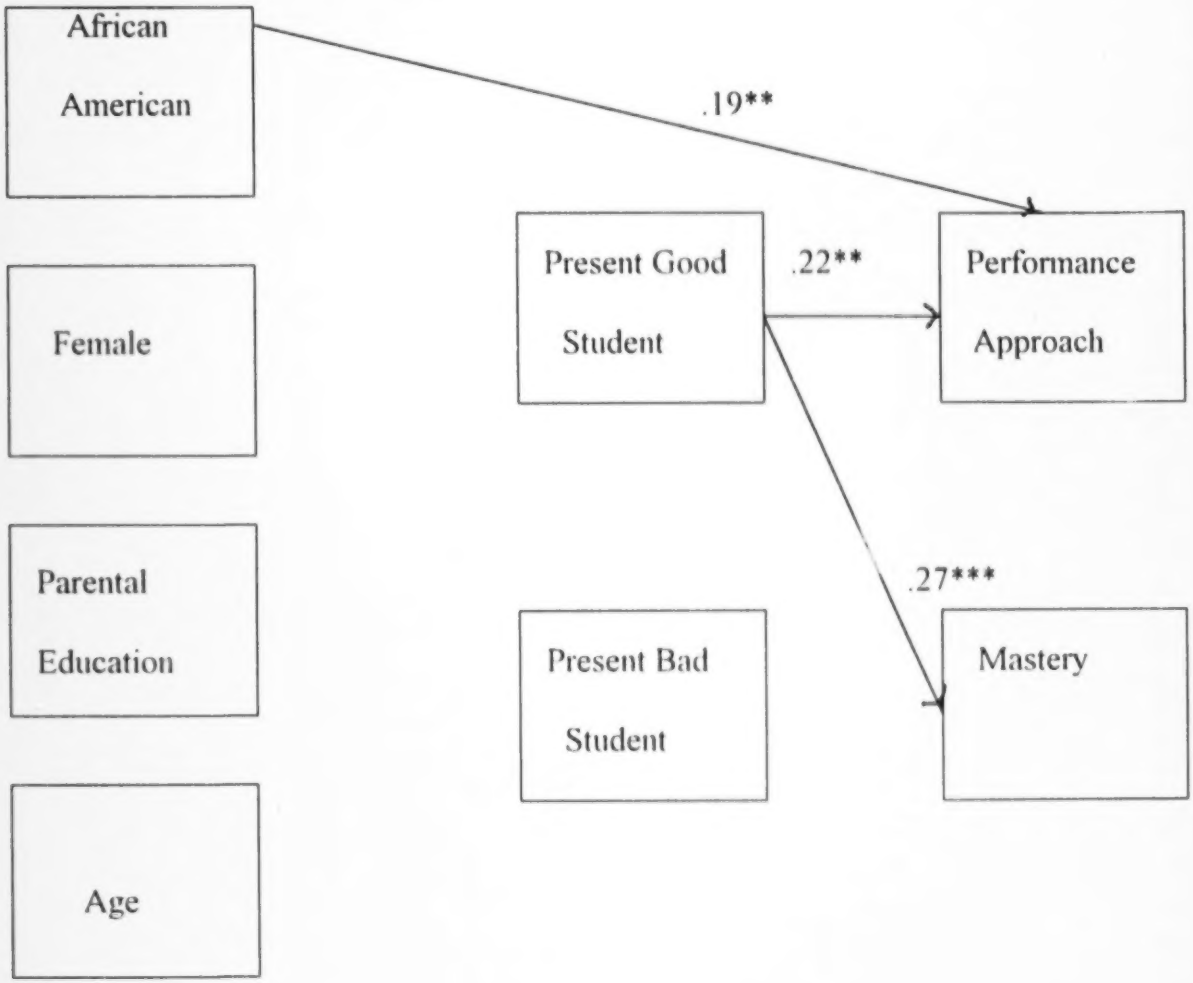

Figure 2.

Path Analysis for Future Selves and Achievement Goals